

al. In View of U.S. Patent 5,955,251 to Koyama et al. (Paragraphs 4-6 of Office Action)

Claims 1, 4 and 5 have been rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,562,143 to Hirabayashi et al. for the reasons set forth in paragraphs 4 and 6 of the Office Action. Claims 2-16 have been rejected by the Examiner under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,562,143 to Hirabayashi et al. in view of U.S. Patent 5,955,251 to Koyama et al. for the reasons set forth in paragraphs 5 and 6 of the Office Action.

The Examiner's position in the Advisory Action is that it is obvious to include antifoggants taught in Hirabayashi et al. at col. 8, lines 13-33. That is, it is obvious to use the oxazoline compound among the disclosed antifoggants to improve the antifogging properties, such as presented in the Table on page 7 of the response filed April 28, 2003. The Examiner indicates that there are several antifoggants listed in Hirabayashi et al. that are used in the reproduction of the Hirabayashi samples which are equivalent to the mercuric acid and oxazoline compound that are

safe for experimentation. Thus, the Examiner implies that testing should be conducted with one of these safer alternatives. Finally, the Examiner notes that sample 1 presented in the response would be expected to have an increase in fog due to the absence of antifoggant(s).

These rejections are respectfully traversed. Reconsideration and withdrawal thereof are requested.

The Present Invention

Claim 1 relates to a photothermographic material comprising a support having provided on at least one side thereof a photosensitive silver halide, a photo-insensitive organic silver salt, a reducing agent for silver ion and a binder, wherein at least one layer constituting said photothermographic material comprises an oxazoline compound.

Claim 2 relates to a photothermographic material comprising a support having provided on at least one side thereof a photosensitive silver halide, a photo-insensitive organic silver

salt, a reducing agent for silver ion and a binder, wherein at least one layer constituting said photothermographic material comprises an oxazoline compound, wherein said oxazoline compound is a compound having two or more 2-oxazolyl groups represented by the following formula (1) in the molecule,



wherein R^1 , R^2 , R^3 and R^4 each independently represents a hydrogen atom, a halogen atom, an alkyl group or an aryl group, wherein R^1 , R^2 , R^3 and R^4 each does not independently represent a hydrogen atom at the same time, and the alkyl group or the aryl group may have a substituent.

The Hirabayashi et al. Patent

The Hirabayashi et al reference discloses heat development of a photosensitive material comprising a support having provided thereon a heat development photosensitive layer containing photosensitive silver halide, organic silver salt, reducing agent and binder. Column 8, lines 11-25 further discloses that an anti-foggant may be used. One type of anti-foggant among the numerous antifoggants disclosed in the Hirabayashi et al. reference that may be used is an oxazoline. There is no disclosure of improving storage stability in the Hirabayashi et al. reference.

The Koyama et al Reference

Col. 10, lines 13-30 of the Koyama et al reference suggests the use of an oxazoline compound in a thermal sensitive image forming material. This oxazoline compound is present in a subbing layer on the information recording material, since the purpose of this layer is to improve adhesion.

Distinctions Between the Prior Art and The Present Invention

Applicants found that improved storage stability (ΔD_{min}) is achieved by the addition of an oxazoline compound as recited in the present invention. In the Declaration evidence of record, Sample no. 1 containing no oxazoline compound was not different in D_{min} after development from that of each sample containing the oxazoline compound. However, the present invention containing oxazoline compound is unexpectedly different with respect to storage stability (ΔD_{min}) as compared to the sample without oxazoline compound.

In contrast to the present invention, Hirabayashi describes a decrease in D_{min} . However, Hirabayashi is completely silent about storage stability or an improvement in D_{min} during storage.

Moreover, mercuric salt is merely used as an antifoggant in the prior art material. There is no disclosure or suggestion of any affect in improving storage stability. Thus, the rejection is without basis.

Applicants have tested a sample without an oxazoline compound, another sample with an oxazoline compound within the scope of claim

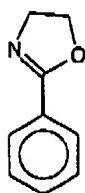
1 and another sample with an oxazoline compound within the scope of claim 2.

The cited reference (Hirabayashi) is not equivalent to and does not suggest the present invention. There is no suggestion of improving storage stability anywhere in the cited Hirabayashi reference. Even if the description of Koyama (which is different in its technical field and in the effect of the oxazoline compound) is taken into consideration, the teachings thereof cannot be expected to improve the image storage storability by using an oxazoline compound in photothermographic materials.

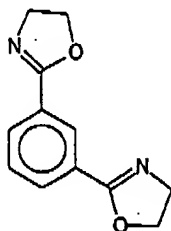
In the Rule 132 Declaration of record, the same procedure as in sample 101 of Example 1 of the present application was performed except that the dispersion was prepared and added in the manner described in the Declaration in order to prepare each of samples 1 to 5. The same evaluations as in Example 1 were conducted for the samples.

The results in the Rule 132 Declaration of record are shown in the following table.

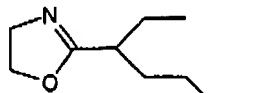
Sample No.	Oxazoline Compound	Coated Amount (g/m ²)	Dmin	Δ.Dmin	Remarks
1	-		0.17	0.36	Comparison
2	A	1.0	0.16	0.30	
3	B	1.0	0.16	0.23	Invention
4	C	1.0	0.18	0.29	
5	D	1.0	0.18	0.21	Invention



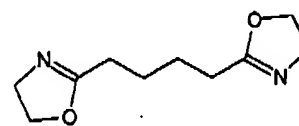
A



B



C



D

Accordingly, the present invention is unexpectedly superior to what is expected in the art. Thus, the prior art rejections should be withdrawn.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees

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required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of
time fees.

Respectfully submitted,

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